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**Notes:**

1. Untranslatable words are replaced with asterisks (\*\*\*\*).
2. Texts in the figures are not translated and shown as it is.

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### [Claim(s)]

[Claim 1] [ database / which stores the data of a parking lot, a gas station, and the transportation service donor that provides service (following transportation service) required during other vehicles movements ] In the transportation service information display system which displays on the terminal by the side of said information user the transportation service information chosen based on the signal from information users, such as information terminal holders, such as a mobile telecom terminal, The database which classified said transportation service donor's accumulation data into the arbitrary categories made into a higher rank layer hierarchical, and constituted the local category for it possible [ read-out ] in every [ of each class ] item (item) at least, A data reduction means to classify a local category as an item hierarchical as a first-in-a-roll item from this database, A number recognition means of data to count the number of data located directly under a local category at least, The transportation service information display system characterized by having a display marginal setting means to set up the number of data which can be displayed on said information terminal, and making the number of data which can be displayed in the 1 screen of said information user's information terminal choose by said display marginal setting means.

[Claim 2] Said number recognition means of data is a number recognition means of data to count the number of data located directly under the node which is the turning point of each item which carried out the class division one by one than a local category. In being size, establish an item newly on this node and it makes this number of data smaller [ than the number of data to which the number / directly under / of data of each of said node was set with said display marginal setting means ] than a display limit. It is the transportation service information display system according to claim 1 characterized by carrying out an item setup so

that this item may be summarized at the time of smallness and said number of data may be displayed within limits smaller than this display limit from said display limit.

[Claim 3] Claim 1 or the transportation service information display system given in two which carries out multidata input of the lower layer category to purpose-oriented from said local category, and is characterized by constituting the category to which said information user met his purpose selectable.

[Claim 4] Claim 1 or the transportation service information display system given in two characterized by establishing two or more priority determination means to give a priority to said transportation service donor's offer data with the pattern in alignment with the information user's purpose, and performing selection of said priority determination means at random.

[Claim 5] [ the data of a parking lot, a gas station, and the transportation service donor that provides service required during other vehicles movements ] In the system which chooses based on the signal from information users, such as an information terminal holder obtained using public correspondence net networks, such as the Internet or mail, and provides said information user's terminal with the this selected information Said information user measures the frequency which accesses each corresponding transportation service donor's data, and the area exception which contains each transportation service donor of every with this access frequency is made into a first-in-a-roll item. The transportation service system to offer information characterized by feeding back to each transportation service donor who analyzes the practical use degree centering on a time-axis in the lower layer, and corresponds these analytical data to it.

[Claim 6] The transportation service system to offer information according to claim 5 characterized by it being possible to access them at any time or periodically using information terminals, such as a mobile telecom terminal which this transportation service donor holds, when feeding back said analytical data to a corresponding transportation service donor.

[Claim 7] The transportation service system to offer information according to claim 5 characterized by being enciphered by the means of a password etc. and transmitting said feedback data in between a transportation service donor and a system donor.

[Claim 8] The transportation service system to offer information according to claim 5 characterized by establishing the format which carries out a direct entry for information by a transportation service donor on said system, classifying the input based on this format as a hierarchical item including a local category item, and providing for an information user.

[Claim 9] [ the data of a parking lot, a gas station, and the transportation service donor that provides service required during other vehicles movements ] In the system which chooses based on the signal from information users, such as an information terminal holder obtained

using public correspondence net networks, such as the Internet or mail, and provides said information user's terminal with the this selected information Said selected information is made to save on the memory of the terminal which said information user holds. The transportation service system to offer information characterized by making said preservation screen show when this user uses the facilities of the transportation service donor who corresponds [ gas station / a parking lot, ], recognizing the screen by the institution donor or an automatic recognition means, and performing preferential treatment, such as discount of a use charge. [Claim 10] [ the data of a parking lot, a gas station, and the transportation service donor that provides service required during other vehicles movements ] In the system which chooses based on the signal from information users, such as an information terminal holder obtained using public correspondence net networks, such as the Internet or mail, and provides said information user's terminal with the this selected information Said transportation service donor's data Offer of only simple area information, including a name, a location, etc., Classify to two or more steps of offer of the detailed information which included detailed information, such as the contents of operating, in the lower layer of this status region information, and the printing price according to the Type of this judgment information is set up by the system side. The transportation service system to offer information characterized by carrying out system composition so that a transportation service donor can do selection of offer according to an information Type.

[Claim 11] The transportation service system to offer information according to claim 10 characterized by what a transportation service donor prepares the period which can use said system at another no charge and preferential treatment charge, this donor's information service is urged, and the information user's transportation service range of choice expanded by said system side.

[Claim 12] The transportation service system to offer information according to claim 9 to 10 characterized by said system being a parking lot information or a parking lot reservation system.

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#### [Detailed Description of the Invention]

[0001]

[Field of the Invention] [ this invention ] while this invention uses information terminals, such as a cellular phone, for the user of a service institution and displays and provides him with guidance information It is related with the transportation service information display system

and system to offer information which are made to display the information on traffic systems, such as guidance in a parking lot, on information terminals, such as a cellular phone, and with which a system user is especially provided from this user's Assessment on Search Report by Designated Searching Authority.

[0002]

[Description of the Prior Art] A display and search engine of varieties of information, such as a hotel and guidance to a department store, are better known than before. Various technology is proposed in recent years as a measure for the problem of the display field by search with mobile telecom terminals which have spread widely, such as a cellular phone, and PHS, PDA, i.e., the problem of the physical display field of the small Personal Digital Assistant of a screen. For example, in JP,H9-319763,A, when the continuous scroll directions are made, the information retrieval method that the item which corresponds at the scroll speed demanded can be searched is proposed. The item which he wants for this to look for by plain key operation can be searched and displayed intelligibly. Moreover, the search-results method of presentation which can remove the unfairness by a display order is shown by by changing an order into JP,H7-36918,A and displaying the search results of the same conditions which cannot be rank set up on it using a random number.

[0003] However, in said JP,H9-319763,A, adjustment of the animation side by being unable to avoid the operation which scrolls, and being unable to declare that the operation itself is so plain, but scrolling is not easy, either. Moreover, by the display using a random number, although fairness has, there is a problem of being hard to read information, by entire random display, in view of the information user side.

[0004] Moreover, various systems which mind a public network, and display and provide many and unspecified institution users with empty situations, position information, etc., such as a parking lot and accommodations, are also proposed. Since this proposal is making more information users receive information and the capacity factor of institutions, such as a parking lot, rises, it is simple for a user, and the method of offering the suitable information according to the purpose is shown. These methods have information offered from the advertiser who offers institutions, such as a parking lot, and the information user, i.e., an institution user, is provided with them with the information method of presentation with which the entrepreneur (henceforth an entrepreneur) who performs system management described the information above through the public network. Therefore, this system not only can use the suitable information for an information user by simple operation, but the system by which the sales promotion greatest at the minimum cost can realize information service corresponding to the purpose also for the transportation service donor (advertiser) is needed. I get an information

user to input the degree of practical use about a system to offer information as JP,H9-81638,A as solution of this problem in the style of the kind which fills out a questionnaire, and it applies for the patent which updates the offer information based on it.

[0005] Moreover, the method (JP,H11-145954,A) of using for advertisement of a system to offer information, when a transportation service donor pays the expense relevant to an information user's Internet access instead of a user, The data registration method (JP,H6-187081,A) using the system to offer information (JP,H3-114348,A) between the transportation service donor to whom subscription to it was permitted, and an information user, and the Internet etc. is proposed using personal computer communications etc.

[0006]

[Problem to be solved by the invention] However, the device for these proposals to supply efficiently the data of the transportation service donor who provides service required during vehicles movement of others of a parking lot or a gas station to an institution user is not not only made, but even the suggestion is not carried out. Moreover, although the practical use degree of the provided transportation service was investigated by the questionnaire etc. with the conventional technology This has complicated operation for an information user, time and effort cuts to analysis of information great also for a transportation service donor, and also it becomes work difficult also for a transportation service offer system entrepreneur to report results of an investigation to this purveyor of service individually. [ this invention ] while this invention can search easily the data of the transportation service donor who provides service required during vehicles movement of others of a parking lot or a gas station in view of the starting technical technical problem It is in a transportation service donor being able to offer impartially the information that the degree of information practical use is high, and offering the transportation service information display which is the minimum cost and in which the greatest sales promotion is possible, and its offer system for the entrepreneur (henceforth the system side) of an information system.

[0007]

[Means for solving problem] In order that this invention may solve this technical problem, as invention according to claim 1 [ database / which stores the data of a parking lot, a gas station, and the transportation service donor that provides service (following transportation service) required during other vehicles movements ] In the transportation service information display system which displays on the terminal by the side of said information user the transportation service information chosen based on the signal from information users, such as information terminal holders, such as a mobile telecom terminal, The database which classified said transportation service donor's accumulation data into the arbitrary categories made into a

higher rank layer hierarchical, and constituted the local category for it possible [ read-out ] in every [ of each class ] item (item) at least, A data reduction means to classify a local category as an item hierarchical as a first-in-a-roll item from this database, A number recognition means of data to count the number of data located directly under a local category at least, It has a display marginal setting means to set up the number of data which can be displayed on said information terminal, and is characterized by making the number of data which can be displayed in the 1 screen of said information user's information terminal choose by said display marginal setting means.

[0008] [ and said this information display system according to claim 1 ] Said number recognition means of data is a number recognition means of data to count the number of data located directly under the node which is the turning point of each item which carried out the class division one by one than a local category. In being size, establish an item newly on this node and it makes this number of data smaller [ than the number of data to which the number / directly under / of data of each of said node was set with said display marginal setting means ] than a display limit. It is characterized by carrying out an item setup so that this item may be summarized at the time of smallness and said number of data may be displayed within limits smaller than this display limit from said display limit.

[0009] In order to extract the transportation service area chosen based on the signal from information users, such as information terminal holders, such as a mobile telecom terminal, as first-in-a-roll item data information according to this invention Since upper tables, such as a parking lot which corresponds while in other words extracting information according to movement of vehicles, are displayed [ when retrieving the information that data volume is large at the small information terminal of an information screen ] It is expected that the institution which is displayed on a screen by the minimum scroll function, and can plan a user's convenience, as a result is needed, and the increase of the access frequency between information users (a parking lot, a gas station, etc.) and the number of times of institution use also increase.

[0010] Moreover, invention according to claim 3 carries out multidata input of the lower layer category to purpose-oriented from said local category, and is characterized by constituting said information user selectable in the category in alignment with one's purpose. After this is extracted on two or more categories and the local class which are displayed on the search method appointed screen, in the case of a gas station, [ "special agent exception" / in the case of a parking lot ] like an empty information and parking type-of-a-car exception The category appropriate for the information user's various purposes is set up, and since required information can be retrieved by the category which this user chose, a plain and rational search

can be performed.

[0011] Furthermore, invention according to claim 4 establishes two or more priority determination means to give a priority to said transportation service donor's offer data with the pattern in alignment with the information user's purpose, and is characterized by performing selection of said priority determination means at random. this invention -- each transportation service donor's facilities -- an information user -- being fond -- if -- not being fond -- although -- Also when a transportation service donor's printing order becomes random and displays the search results which a transportation service donor cannot rank set up, while being able to correct the unfairness by the front and rear of an information service order or a database address order Since a certain amount of priority is determined by the priority determination means, the random nature of a display order is seen from the side which looks at a display result, and it is easy to understand it as compared with an entire random display.

[0012] Moreover, an information display system which was described above as a system with which an information user is provided [ invention according to claim 5 ] [ the data of a parking lot, a gas station, and the transportation service donor that provides service required during other vehicles movements ] In the system which chooses based on the signal from information users, such as an information terminal holder obtained using public correspondence net networks, such as the Internet or mail, and provides said information user's terminal with the this selected information Said information user measures the frequency which accesses each corresponding transportation service donor's data, and the area exception which contains each transportation service donor of every with this access frequency is made into a first-in-a-roll item. The practical use degree centering on a time-axis is analyzed in the lower layer, and it is characterized by feeding back these analytical data to each corresponding transportation service donor. According to this invention, for a transportation service donor, a distant antagonist's data is unnecessary and its contrast with the surrounding antagonist of a self institution is required first. Since it is Measurement Division of access frequency first, a user's practical use information is automatically measurable, and since it is simply realizable, it does not become a system entrepreneur's burden, and objective Assessment on Search Report by Designated Searching Authority can be demanded from a donor from a system entrepreneur. Furthermore, since this system to offer information is not the thing to which an information user is made to reply by a questionnaire method, there is no sense of incongruity of a user.

[0013] Moreover, it is characterized by it being possible to access them at any time or periodically as invention according to claim 6, using information terminals, such as a mobile telecom terminal which this transportation service donor holds, when feeding back said analytical data to a corresponding transportation service donor. Thus, while excluding the work

by creating said analytical data as a database and getting a transportation service donor to access at any time, the transportation service donor can access analytical data at any time, and the timely analysis of him is attained.

[0014] Furthermore, said access frequency [ in / in invention of Claim 7 and eight descriptions / said transportation service system to offer information according to claim 5 ], Or the thing for which said feedback data is enciphered by the means of a password etc. in between a transportation service donor and a system donor, and said analysis result is transmitted, Or it is characterized by establishing the format which carries out a direct entry for information by a transportation service donor on said system, classifying the input based on this format as a hierarchical item including a local category item, and providing for an information user.

[0015] [ according to said invention according to claim 7, enciphering the operation situation of a self institution and constituting possible / recognition / only between a transportation service donor and an entrepreneur ] The fairness of a principle of competition can be maintained without it not only being able to attaining security-ization of this system, but a near antagonist's abusing the operation data and running to an unnecessary price competition etc.

[0016] Moreover, while according to the Claim 8 description the information input cost by the side of an entrepreneur is reducible with a transportation service donor because I have direct offer information inputted by predetermined format, the selection flexibility of this donor's information service becomes large.

[0017] [ moreover, the data of the transportation service donor who provides service during a parking lot, a gas station, and other vehicles movements to be invented / according to claim 9 ] In the system which chooses based on the signal from information users, such as an information terminal holder obtained using public correspondence net networks, such as the Internet or mail, and provides said information user's terminal with the this selected information Said selected information is made to save on the memory of the terminal which said information user holds. It is characterized by making said preservation screen show, when this user uses the facilities of the transportation service donor who corresponds [ gas station / a parking lot, ], recognizing the screen by the institution donor or an automatic recognition means, and performing preferential treatment, such as discount of a use charge.

[0018] While it sees in order that an information user may use this system positively, in order to obtain preferential treatment by this, and the upper access frequency also improves While institution users who have joined in this system, such as a parking lot, increase in number and being able to aim at repeat attendance by reuse of memory information further, the practical use degree of this institution can also be known by Measurement Division of that attendance frequency.



[0019] As the promotion-of-utilization method to the transportation service donor of this system to offer information [ the data of a parking lot, a gas station, and the transportation service donor that provides service required during other vehicles movements ] In the system which chooses based on the signal from information users, such as an information terminal holder obtained using public correspondence net networks, such as the Internet or mail, and provides said information user's terminal with the this selected information Said transportation service donor's data Offer of only simple area information, including a name, a location, etc., It is characterized by classifying to two or more steps of offer of the detailed information which included detailed information, such as the contents of operating, in the lower layer of this status region information, setting up the printing price according to the Type of this judgment information by the system side, and carrying out system composition so that a transportation service donor can do selection of offer according to an information Type.

[0020] Furthermore, invention of Claim 11 and 12 descriptions prepares the period when a transportation service donor can use said system at another no charge and preferential treatment charge by said system side. This donor's information service is urged, the feature of what the information user's transportation service range of choice expanded is carried out, and said especially system is characterized by being a parking lot information or a parking lot reservation system.

[0021] Thus, while being able to perform selection according to many situations of the transportation service donor by preparing a gap in an information printing price, or preparing a free service period, it does not become a burden by the side of an entrepreneur, but validity is shown in sales promotion of this system. In addition, information, including a voice information, picture information, etc., is also included in said detailed information.

[0022]

[Mode for carrying out the invention] With reference to Drawings, the suitable work example of this invention is hereafter explained in detail in illustration. However, the size of the component parts indicated in this work example, the quality of the material, form, its relative arrangement, etc. are not the meaning that limits the range of this invention to it but only the mere examples of explanation, as long as there is no specific description in particular. The embodiment of this invention is realized by existence of the four next persons.

\*\* It is the entrepreneur (henceforth a system entrepreneur) who employs a system, and provide the information user who is an end user further with the information offered.

\*\* It is holders, such as a parking lot institution and a gas station, (when that is not necessarily right, there may also be a case of the stand gasoline refining contractors have jurisdiction [ stand ].), and he is the transportation service donor who provides an entrepreneur with the

institution information.

\*\* It is the user (henceforth an information user) of a system to offer information, and while receiving information using PHS, a personal digital assistant, or the information terminal in which movement like a navigator is possible and choosing the optimal institution etc., use this institution etc.

\*\* It is the developer of a system to offer information, and don't generate relevance in this application. Moreover, although this embodiment is explained taking the case of a parking lot information or a parking lot reservation system, it can apply areas, such as transportation service information, including highway information, parking area information, etc., a gas station, and a hotel, also to the service institution by which it is characterized.

[0023] In this embodiment, from drawing 1, drawing 5 expresses the display system of data, when said information user searches using an information terminal and the mobile communications information terminal of a screen possible carrying of a cellular phone, PHS, or PDA especially and small. Drawing 1 is a flow chart which shows the procedure of operation of setting up the number of display data, and drawing 2 shows the hierarchy structure (c) when decreasing the hierarchy structure (b) at the time of making the item of the table (a) of the object data in which the value of each item in drawing 1 is shown, and object data increase, and this item.

[0024] First, based on the flow chart of drawing 1, the processing procedure of performing information retrieval, such as parking lot information, is explained. In employment of a system, said entrepreneur collects each purpose-oriented information with local information from a transportation service donor, and once stores in a database (S1). The information registration method from this transportation service donor is later mentioned in drawing 8 shown later. Next, said information user sets up the number  $L_{max}$  of data which can be displayed in the 1 screen of the mobile communications information terminal used for search of the information on each purpose narrowed down for local information (S2). This may be constituted so that the entrepreneur side may recognize the model of information terminal which this information user is using, and it may establish a means to recognize the number of display marginal data, in this information terminal.

[0025] And the category for classifying data so that search which met various purposes in a predetermined area focusing on the information user who the data stored in the database which an entrepreneur once holds makes local information first in a roll, and is moving to the lower layer by vehicles etc. can be performed is set up (S3). Although this category is in agreement with many information users' view, it is arbitrarily chosen from inside, and it is chosen so that rational search can be performed. Next, the item (item) which specializes the

data in said database hierarchical by the category chosen as the lower layer by making said local information into first in a roll is determined, and the value (or range) which can be taken in each item is defined (S4). If the area which is a first-in-a-roll item among the above mentioned categories is taken for an example, the item that data is subdivided will be set up like all prefectures, a city or a county, a town, or a division as a division-by-class item, the value for every item will be written in addition about each set elephant data, and a table 1 will be created (S5). This table 1 is constituted as shown in [drawing 2 \(a\)](#).

[0026] Furthermore, the class tree 2 based on said table 1 is created (S6). This class tree 2 is shown in [drawing 2 \(b\)](#), and each node \*\* which is the turning point of said class tree 2 and \*\* - about ... This node \*\*, \*\* ... When the number of data located in directly under is counted (S7) and it has been recognized as number of data  $>L_{max}$  (the number of screen display marginal data) of each node, an item is newly prepared in the higher rank of this node, and it is referred to as number of data  $\leq L_{max}$ . For example, it sets up so that the data which establishes an "area" in the higher rank of the item "all prefectures" as a new item, and is located directly under the node \*\* may be displayed in 1 screen according to all prefectures.

[0027] Even if it, on the other hand, summarizes what has the number of object data few among the items belonging to the same node, when being set to this number of data  $\leq L_{max}$ , it is good to prepare and summarize a new item. As shown in [drawing 2 \(c\)](#), by gathering the data [ directly under ] 2a and 2b of node \*\* of an item "division or county", and forming the data 2c based on a new item, the amount of information transmitted on one screen increases, and offer of information can be performed efficiently. Thus, when retrieving the information that data volume is large at the small information terminal of a screen, it is displayed without a scroll function on a screen, and a user's convenience can be planned.

[0028] Moreover, as shown in the display screen flow of the search processing classified by category shown in [drawing 3](#), convenience to a purpose-oriented information user can be planned by classifying the object data about parking lot information according to various categories. [ this ] like the display screens 6 and 7 "two or more categories displayed on the search method appointed screen 5, for example, a "Japanese kana syllabary exception", and a local exception", or "according to special agent", and 8 grades The category appropriate for the information user's various purposes is set up, it can search next by the category which this user chose with the display screen 9 of "Tokyo Metropolitan Government" and "Kanagawa Prefecture", and 10 grades, and required information can be retrieved easily.

[0029] by the way -- the case where the search results of the same conditions which cannot be rank set up are displayed also by the above-mentioned system -- a result -- the time of a display -- partial -- patterning -- introducing -- if -- being good . The information offered by the

transportation service donor registers original data with the physical address which decides a physical storing position to be a meaning into the database which once stores the data, and creates the original data table (database) 11a shown in drawing 5 (a). And two or more patterns are set up to the original data table 11a, and about each pattern, the priority of each object data is created, as shown in the display order table 11b shown in drawing 5 (b). For example, in this display order table 11b, it means that the physical address 3 belongs to the class of the priority 1 when displayed by Pattern B. Since this priority is constituted so that the pattern which suited the purpose of information users, such as a "parking lot charge" and "position information", for example can be chosen, it tends to read search results for this user.

[0030] [ that the flow chart which shows the procedure of the search processing by the random number display including the fixed patternizing processing which shows drawing 4 this information display system of operation explains briefly ] First, it searches with the original data table 11a of data drawing 5 (a) applicable to the conditions which an information user demands, and the applicable data N [ several ] is memorized (S10). On the other hand, a display pattern is determined (S11), the priority data about the pattern corresponding to the physical address of applicable original data is read into a buffer, and a table 12 like drawing 5 (c) is created (S12). Furthermore, sorting (S13) and each priority are made to increase from 1 to an ascending order one by one by a priority, as shown in drawing 5 (d) (S14), a sequential number is given like drawing 5 (e), and the physical address of the same priority is held on a memory. The number of data at this time is set to n (S15). And at the time of  $n > 1$ , the random number between 1 - n is generated, and the original data of the physical address which makes the random number a sequential number is displayed (S16).

[0031] Also when displaying the search results in which a rank setup is impossible, while being able to correct the unfairness by the front and rear of an information display order, the random nature of a display order is seen from the side which looks at a display result, and it is easy to understand it by this embodiment as compared with an entire random display. Of course, patternizing may be used for this embodiment in order of all the displays, and it may make all the display order a random display conversely.

[0032] Next, the system to offer information shown in drawing 7 from drawing 6 is explained as a system which provides an information user with a display system which was described above. The composition figure in which drawing 6 (a) shows the relation between an information terminal and an information service means, and (b) measure an information user's access frequency. The flow chart which shows the procedure of operation between a user, an entrepreneur, and a donor, the outline composition figure in which drawing 7 shows security-ization between a transportation service donor and an entrepreneur, and drawing 8 show the

flow chart which shows the procedure of the information registration processing between a transportation service donor and an entrepreneur of operation, respectively.

[0033] By drawing 6, the display screen of an information terminal with which 15a described a cellular phone and 17a above for a personal computer and 15b, and 17b show an access counter. These information terminals 15a and 15b can access information service means, such as a homepage, by the Internet 16, and the number 17b of accesses counts them by the access counter file within this information service means. [ the flow between the information user of this system, an entrepreneur, and a transportation service donor / explaining briefly ] An information user accesses the homepage of this system to offer information by URL (S17) of the system to offer information which the entrepreneur exhibited (S18), and the homepage of the specific institution information which this user searches for is accessed. (S19) an entrepreneur side counts the access frequency to this user's homepage by said access counter file (S20) -- the transportation service donor of the institution concerned -- access frequency -- notifying (S21) -- An institution exception and an area exception analyze the practical use degree of systems to offer information, such as monthly, (S23).

[0034] On the other hand, the transportation service (S21) donor notified of the access frequency analysis result relevant to the institution concerned from the entrepreneur analyzes an institution practical use degree by using this information service, the actual number data of warehousing, etc. (S22). Thus, by being constituted so that an information user's practical use information can be measured only by measuring not a questionnaire method but access frequency Since an information user is not made to input except original information practical use, it is comfortable and acquisition of practical use information can be realized further simply, it does not become a burden for an entrepreneur. Moreover, objective Assessment on Search Report by Designated Searching Authority can be shown to a transportation service donor from an entrepreneur, and exact practical use information can be acquired. In addition, a corresponding transportation service donor enables it to access at any time or periodically the data containing the analytical data which show said Assessment on Search Report by Designated Searching Authority using a Personal Digital Assistant etc. By this, while a transportation service donor can analyze this data timely, working efficiency will improve sharply.

[0035] Said access frequency analysis result is good except an entrepreneur and this institution holder to encipher that it cannot know and to give a security function so that unarranging may not arise by getting to know the movable situation of the other company among the institution donors of the other company in the same trade. [ the transportation service donor who drawing 7 is / donor / the outline composition figure of this security system, and

wants to know an operation situation ] If URL which connects an operation situation by a browser 18 is inputted, the password input means 19 will be displayed, and it can connect now with the file 21a of an operation situation by entering the peculiar password 19a correctly. In addition, an input of the password in which it made a mistake or it did not enter Password 19a will display Screen 21b in which it is shown that access was refused.

[0036] [ moreover, the institution donor who drawing 8 is what showed the registration system of the information offered by the transportation service donor, and an entrepreneur exhibits URL of an entrepreneur homepage (S24), and desires offer of information ] This entrepreneur homepage is accessed, an offer information collection page is accessed further (S25) (S26), and temporary registration is performed by filling in the offer information registration page 20 as shown in drawing 9 (S27). An entrepreneur does temporary storing of said registered offer information into a database (S28), and checks truth of offer information (S29). When judged with truth by this (S30), the password for a printing information check is notified (S32), and when it is judged that the information which starts in one side is not exact, the failure of information printing is connected to a transportation service donor (S31).

[0037] Said password is notified by an E-mail, FAX, etc., by having held this, the transportation service donor can access a printing information check page (S33), and offer information can be formally registered into a database by what (S34) this password is entered for (S35). [ thus, the thing which I perform offer information collection on the Internet, and have input this information by the transportation service donor itself ] While reducing the information input cost by the side of an entrepreneur, the flexibility of selection a donor's information service becomes large by leaving the information input of those other than the fixed-data item decided beforehand to this donor.

[0038] The transportation service donor permitted use of the system from the entrepreneur as described above desires public presentation of only the amount of information which each donor needs. This is undertaken and, as for the donor of a system to offer information, it is desirable to design a system to perform selection according to each donor's situation. Then, an example of the display screen which prepared the information printing spread is shown in drawing 10 . The information service data set as budget prices in order that (a) might publish simple information, and (b) show the information service data set as the heavy price, in order to publish detailed information. According to this, according to the kind of the amount of information or information, two or more ranks are prepared from simple information to detailed information among information to offer. In the detailed information 27 or the information on a sound 29 and picture 28 grade, a printing price is set up highly, and the simple information on a name 24, a location 25, and telephone number 26 grade is constituted so that it can publish

with budget prices.

[0039] Moreover, the flow chart which shows the procedure of operation between the parking lot and user who formed the charge service system in drawing 11 as a system to which institution use to an information user is urged is shown

The user (S37) who accessed this homepage etc. stores in the memory of a Personal Digital Assistant the page 35 of the applicable institution information that the data of the institution name 36 as shown in drawing 12 , or this screen display date time 37 grade was published (S38). The user who brought said Personal Digital Assistant can read and display the information on said access page from the memory of this terminal at the time of entrance of the institution concerned (S39),

[0040] On the other hand, said shown page is checked by an official in charge or automatic recognition equipment. In the case of the former, the data of access time, entrance time, etc. is inputted manually (S42), and in the case of the latter, character recognition of said data is carried out with image recognition equipment, it is inputted automatically (S43), and is stored in a database (S44). The data stored in this database is used for analysis of the practical use degree of this parking lot by tools of analysis. According to this service, repeat attendance by an increase and reuse of memory information of an institution user can be aimed at. In addition, it is good for the above-mentioned parking lot information printing page as an institution user's charge payment method to aim at this user's increase in attendance by publishing the information on a coupon ticket, a prepaid card, a credit card, etc. in addition to special agent information.

[0041] Moreover, the block diagram (a) and its processing procedure (b) of the system to offer information which prepared the free service period in drawing 13 are shown as a system to which use of the system to offer information from an entrepreneur to a transportation service donor is urged. It stores in the database 32 by using the institution name, the directory of an applicable file, a display opening day, and a display end date as the display institution table 33 from the file of the institution information 31a and 31b for every institution, and carries out by a flow as shows drawing 13 (b) management of registration, a display stop, etc.

[0042] [ display processing (S47) of information ] among the processings (S46) by this free service period setting system By displaying the contents of a file of the directory, search the directory of the institution which had the display demand on the display institution table 33, become possible, and [ registration processing (S48) ] After creating the file of institution

information, it becomes possible by adding the directory and the record of a display opening day and a display end date to the display institution table 33. Moreover, change processing (S49) of a display period etc. is updating the display period of the record of the applicable institution of the display institution table 33 etc., and can be arbitrarily changed about the data item stored in this display institution table 33.

[0043] Furthermore, stop processing (S50) of display expiration searches the record of <= (processing that day) from said display institution table 33 (display end date), and deletes the information file of this institution. And after deletion is completed to quality, <= (processing that day) record is deleted from the display institution table 33 again (display end date). When abnormalities occur, it recovers from backup data and sets up to rerun the above-mentioned deletion. In addition, this stop processing is good after daily periodical backup processing to make it make it start automatically. It is possible to perform simply set/reset accompanying the information service stop after a free service period, extension, etc. by having such composition, and since it does not become a burden by the side of an entrepreneur, validity is shown in sales promotion of this system to offer information.

[0044]

[Effect of the Invention] While an information user can search easily above the data of the transportation service donor who provides service required during vehicles movement of others of a parking lot or a gas station like a description according to this invention A transportation service donor can offer impartially the information that the degree of information practical use is high, and for the entrepreneur (henceforth the system side) of an information system, it is the minimum cost and the greatest sales promotion is possible. Moreover, according to this invention, for an information user, operation is simple and suitable information can be retrieved on the purpose and conditions out of much information. Moreover, he can provide all the transportation service donors with information by a fair method while a transportation service donor cannot be known by the others, but can know easily the degree of practical use of this offer information and can try offer of a suitable institution to a demand of an institution user. Moreover, the entrepreneur of said system to offer information is using a database or saving time and effort, such as a transportation service donor's information input, and can realize the sales promotion greatest at the minimum cost.

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[Brief Description of the Drawings]

[Drawing 1] It is the flow chart which shows the procedure of operation of setting up the



number of display data in the transportation service information display system of this invention.

[Drawing 2] The hierarchy structure (c) when decreasing the hierarchy structure (b) at the time of making the item of the table (a) of the object data in which the value of each item in drawing 1 is shown, and object data increase, and this item is shown.

[Drawing 3] The flow chart figure of the display screen in the search processing classified by category is shown.

[Drawing 4] It is the flow chart figure showing the procedure of the search processing by the random number display including fixed patternizing processing of operation.

[Drawing 5] the original data table in drawing 4 -- (a) display order table pattern [ (b) ] setting (table c) priority (table d) sequential number grant table (e) is shown.

[Drawing 6] It is the flow chart (b) which shows the procedure of operation between a user, an entrepreneur, and a donor which measures the access frequency of the composition figure (a) and information user who show the relation between an information terminal and an information service means.

[Drawing 7] It is the outline composition figure showing security-ization between a transportation service donor and an entrepreneur.

[Drawing 8] It is the flow chart figure showing the procedure of the information registration processing between a transportation service donor and an entrepreneur of operation.

[Drawing 9] The information registration screen in drawing 8 is shown.

[Drawing 10] With an example of the display screen which prepared the information printing spread, the budget-prices information to which (a) published simple information, and (b) show the heavy price information which published detailed information.

[Drawing 11] It is the flow chart figure showing the procedure of operation between the parking lot and user who formed the charge service system.

[Drawing 12] The display screen of the information printing page in drawing 11 is shown.

[Drawing 13] The block diagram (a) and its processing procedure (b) of the system to offer information which prepared the free service period are shown.

[Explanations of letters or numerals]

1 Table

2 Class Tree

11a Original data table

11b Display order table

16 Internet

17a The display screen of an information terminal

17b Access counter

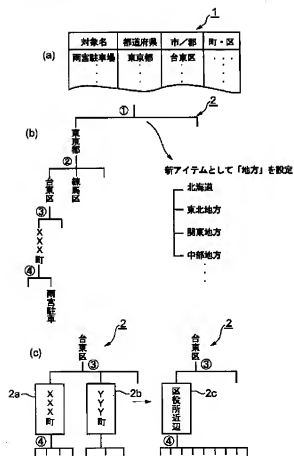
18 Browser

19 Password Input Means

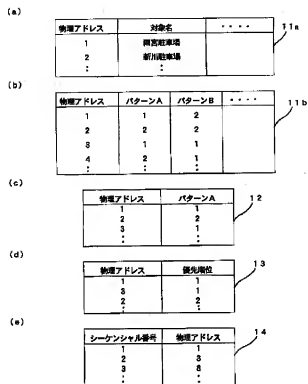
31a, 31b Institution information

33 Display Institution Table

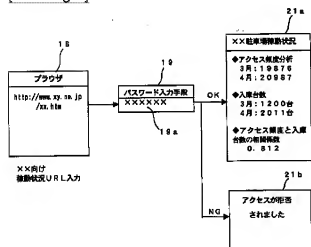
[Drawing 2]



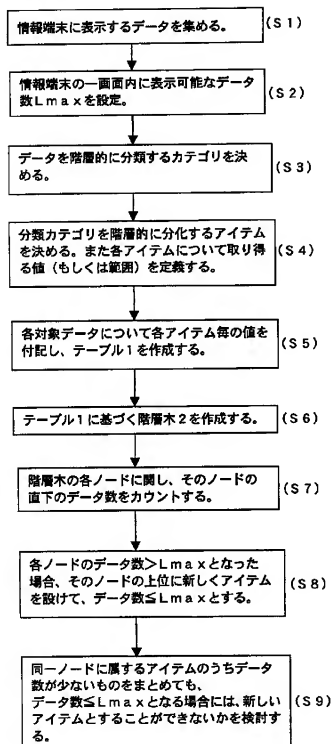
[Drawing 5]



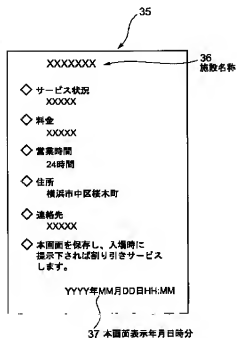
[Drawing 7]



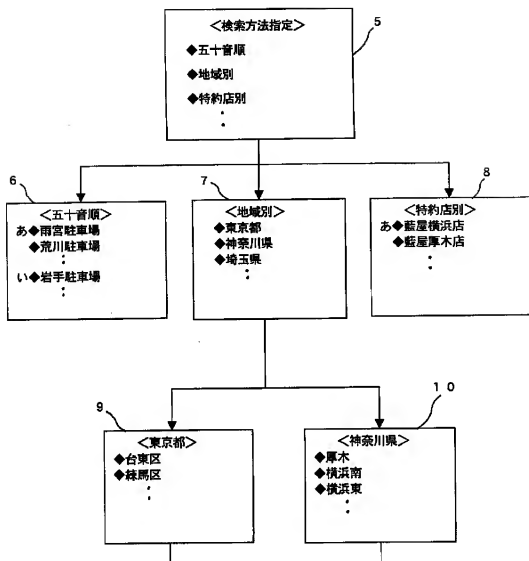
[Drawing 1]



[Drawing 12]

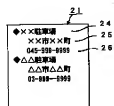


[Drawing 3]

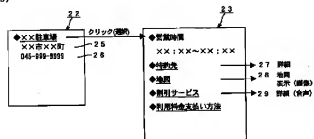


[Drawing 10]

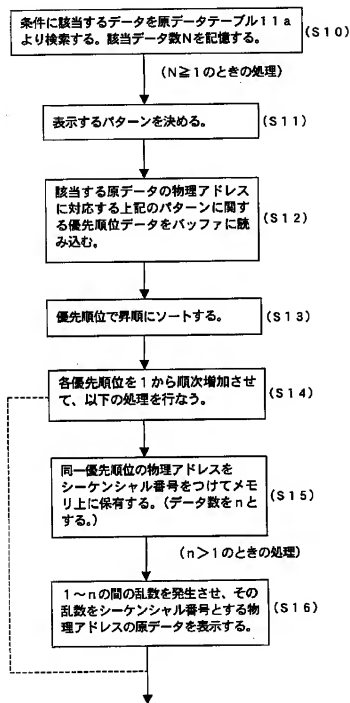
(a)



(b)



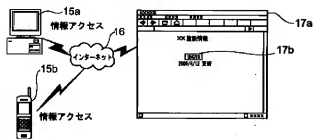
[Drawing 4]



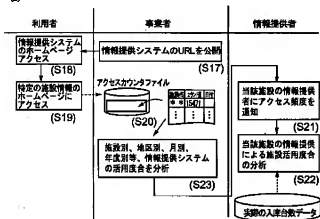
[Drawing 6]



(a)



(b)



[Drawing 9]

20

YYYY年MM月DD日

提供情報(仮)登録

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サービス料金:

定休日:

ご住所:

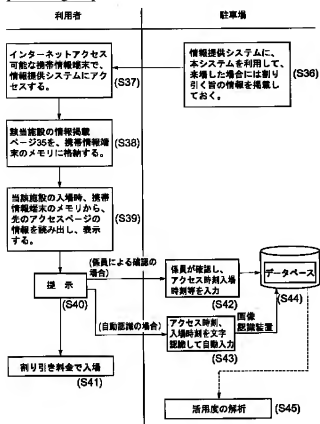
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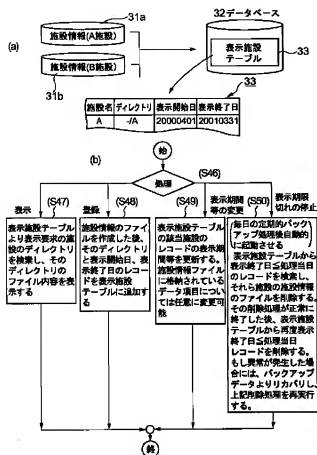
入会者ご氏名:

メールアドレス:

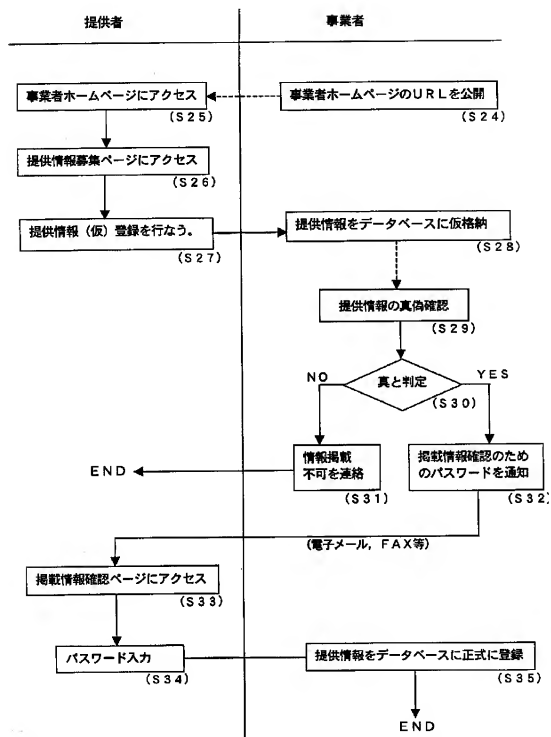
[Drawing 11]



[Drawing 13]



[Drawing 8]



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[Translation done.]